

## PATENT-ASSIGNEE:

|                         |       |
|-------------------------|-------|
| ASSIGNEE                | CODE  |
| IBEG MASCH & GERAETEBAU | IBEGN |

PRIORITY-DATA: 1982DE-3242134 (November 13, 1982)

## PATENT-FAMILY:

| PUB-NO              | PUB-DATE        | LANGUAGE | PAGES | MAIN-IPC |
|---------------------|-----------------|----------|-------|----------|
| <u>DE 3242134 A</u> | May 17, 1984    |          | 006   |          |
| <u>DE 3242134 C</u> | August 31, 1989 |          | 000   |          |

## APPLICATION-DATA:

| PUB-NO      | APPL-DATE         | APPL-NO        | DESCRIPTOR |
|-------------|-------------------|----------------|------------|
| DE 3242134A | November 13, 1982 | 1982DE-3242134 |            |

INT-CL (IPC): B60R 3/02; B61D 23/00

ABSTRACTED-PUB-NO: DE 3242134A

## BASIC-ABSTRACT:

A step, for e.g. trams, consists of two parallel plates with a central bush. The plates move towards each other when a passenger stands on the step, i.e. top plate. This movement operates microswitches which disconnect power to the step retraction motor, preventing its operation whilst the step is in use.

Two coil springs are fitted to return the plates to their original position when weight is removed. The whole assembly has a weatherproof flexible seal around its edge. The lay-out of springs and switches ensures correct operation wherever weight is applied. Since the step can be manufactured as a unit it can be easily fitted to a vehicle.

## ABSTRACTED-PUB-NO:

DE 3242134C

## EQUIVALENT-ABSTRACTS:

The safety device consists of two spring-spaced parallel plates either side of a pressure switch connected to the step drive. The plates (1,2) are centrally recessed to take a guide and spacer (5,7,8) and there are pressure switches (9) on both sides at equal distance from the guide plus compression springs (10) on both sides spaced from the switches.

Pref. the guides consist of recesses on the two plates (3,4) and spacing is effected by a bushing (7) and a rivet (8) fastening this to the plate (2).

USE/ADVANTAGE - Rail vehicles, step safety. Encapsulated safety device covers entire step area to ensure that step drive is cut out under body weight only, remaining unaffected by snow, dirt etc.

(4pp)

CHOSEN-DRAWING: Dwg.0/2

TITLE-TERMS: RETRACT VEHICLE STEP INBUILT SAFETY SWITCH CUT RETRACT MOTOR POWER  
SUPPLY WEIGHT SENSE STEP